# British Birds

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**Comparative ecology of pigeons in inner London**
Derek Goodwin

**The use by sea-birds of human fishing activities**
Jeffery Boswall

**Migrants at station "Juliett" in September 1959**
Ivor McLean and Kenneth Williamson

**The National Collection of Nature Photographs and examples of the best recent work by British bird-photographers**

**Recent reports and news**

**Notes** **Reviews** **Letters**

Three Shillings

May 1960

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AN ILLUSTRATED MONTHLY JOURNAL

*Edited by*

P. A. D. Hollom E. M. Nicholson

I. J. Ferguson-Lees Stanley Cramp

*Photographic Editor:* Eric Hosking

*Hon. Editors:* W. B. Alexander N. F. Ticehurst

*Editorial Address:* 30 St. Leonard's Avenue, Bedford

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British Birds

VOL. 53 NO. 5
MAY 1960

# Comparative ecology of pigeons in inner London

*By Derek Goodwin*

## INTRODUCTION

THIS PAPER DEALS with the ecology and some related aspects of the behaviour of pigeons (*Columba* sp.) in London. The observations were made between October 1946 and February 1960 in south-western, western, central and north-western areas of inner London. All remarks on relative and absolute numbers are based on observation and estimation. This will, it is hoped, gratify such readers as are as bad at mathematics and as prejudiced against statistics as is the author.

Three species of pigeon breed in inner London—the feral *Columba livia* (commonly known as the Feral Pigeon), the Woodpigeon (*C. palumbus*) and the Stock Dove (*C. oenas*). The two former are exceedingly abundant almost throughout the areas mentioned; the Stock Dove is very much less so, although it is certainly more numerous than most London bird-watchers to whom I have spoken imagine it to be. It is a common breeding species in Kensington Gardens, where, however, it is probably outnumbered at least twenty to one by breeding Woodpigeons. It breeds also in Hyde Park, Regent's Park, Holland Park, St. James's Park and (one certain record only) the Green Park; but in all these places its numbers, both absolutely and relatively to the numbers of breeding Woodpigeons, are smaller than in Kensington Gardens, and it has not so far been found nesting in any of the "squares".

The London population of Feral Pigeons is derived from domestic or semi-domestic stock, the old-time dovecote pigeon and the racing homer being the breeds most involved (see Goodwin 1954 for fuller discussion). The population is heterogenous. Compared with wild Rock Doves, most individuals tend to be much less muscular, to have proportionately larger ceres (called "wattles" by pigeon-fanciers

who use the term "cere" for the orbital skin), thicker bills and a less compact and not so broad-shouldered shape. Individuals with abnormally overgrown upper mandibles are not at all uncommon (at a rough estimate about one in two hundred are so afflicted) and, like the many crippled specimens, they often survive for several years.

The most obvious difference between London and country Woodpigeons is the tameness of the former. It is not known to what extent, if any, this tameness has a genetic basis. Even in inner London there is much variation in the degree of tameness or wildness shown by different individuals and, to a lesser extent, by the same individual at different times. This is not true to anything like the same extent of the Feral Pigeons, none of which will fly out of a tree or off a building if a man walks below or near, as some of the London Woodpigeons sometimes do. The possibility that such very timid Woodpigeons may be transients or immigrants from outside London cannot, however, be excluded.

Quite a number of hook-billed or otherwise defective young Woodpigeons are hatched and reared in London but they, like badly crippled specimens, seldom survive for long. They appear to be eliminated during the period of from one to several months each year that most adult and apparently all immature Woodpigeons spend away from the breeding areas in inner London. At this time they probably form part of the large numbers of Woodpigeons to be found feeding on acorns in such places as Hampstead Heath, Richmond Park and other peripheral areas (see Cramp 1957).

## FEEDING AND FOOD-SEEKING

I do not think that London offers richer food supplies to pigeons than do most country districts. Natural foods seem rather more limited and, although large amounts of bread and other artificial food are fed to birds in London, this supply fluctuates considerably according to the weather and many other factors. The relative lack of predators and the generally harmless or friendly attitude of mankind towards them does, however, enable London's pigeons to exploit all possible feeding areas. Also, except in some of the busier streets and squares, they can feed whenever they like. This contrasts with the situation in the country where, because pigeons fear man greatly, his activities prevent some possible feeding grounds from being exploited at all and severely limit the times during which others can be used. This is true not only for pigeons but even more for some other birds, such as Herons (*Ardea cinerea*) and ducks (*Anas, Aythya*, etc.).

I have never seen Feral Pigeons feeding on privet hedges, small trees or shrubs; nor on the ground in dense wood or scrub cover

TABLE I—FEEDING AREAS OF WOODPIGEONS (*Columba palumbus*) AND FERAL PIGEONS (*C. livia*) IN LONDON

| | Large open spaces in parks | Small open spaces especially in small parks and "squares" | "Squares" without grass | Private "squares" with grass but without "bread" | River's edge at low tide | Busy streets |
|---|---|---|---|---|---|---|
| Woodpigeons | xxxx | xxx | x | xxx | x | |
| Feral Pigeons | xxx | xxxx | xxxx | x | xxxx | x |

| | Quiet streets | Inside stations | Lighted streets and stations at night | In large trees | In small trees and shrubs and on privet hedges |
|---|---|---|---|---|---|
| Woodpigeons | x | x | | xxxx | xxxx |
| Feral Pigeons | xxxx | xxx | xx | x | |

xxxx = very large numbers  xx = small numbers
xxx = considerable numbers  x = few individuals only
The term "bread" covers all artificial foods provided by the general public

other than that of small ornamental shrubberies in parks. Nor have I seen a Woodpigeon feeding in any narrow, gloomy, tree-less street running between high buildings; in a busy street with a considerable amount of traffic moving; or in an artificially lighted street, square or station *during the hours of darkness*. Apart from these exceptions there is a complete overlap of feeding grounds so long as one is considering *all* food-seeking time spent by *all* individuals of both species: some Woodpigeons come down to feed inside large stations, in fairly quiet streets or in small grass-less squares; some Feral Pigeons take buds from the peripheral branches of large trees or forage on the ground in open woodland on Hampstead Heath. If, however, one considers where most of the population of each species spends most of their feeding time then, as will be seen from Tables I and II, a different picture emerges and shows a considerable amount of ecological separation.

The Woodpigeon feeds much above ground, eating the buds, young flowers, young leaves and berries of a great many trees and shrubs, indeed of most (if not all) that do not have sticky or prickly buds. Prickly leaves or stems seem to have little or no deterrent effect so far as other parts of the plant are concerned. The flower buds and very young leaves of the hawthorn are eaten in quantity, as are the berries of the holly. In the parks it feeds much more on the open greensward, well away from such places as paths and tea booths, whereas the Feral Pigeons tend to concentrate in particular areas, commonly near the park entrances, where people bring food. Even

TABLE II—FOODS TAKEN BY WOODPIGEONS (*Columba palumbus*) AND FERAL PIGEONS (*C. livia*) IN LONDON

| | "Bread" given or discarded by man | Buds, seeds and flowers of grasses | Seeds of knot-grass and plantain | Buds and flowers of elm and plane | Buds, flowers or young leaves of ash, lilac, hawthorn and privet |
|---|---|---|---|---|---|
| Woodpigeons | xxx | xxxx | xx | xxxx | xxxx |
| Feral Pigeons | xxxx | xxx | xxx | x | |

| | Berries of hawthorn and other trees | Acorns | Seeds of plane | Young grass shoots and clover leaves | Earthworms |
|---|---|---|---|---|---|
| Woodpigeons | xxx | xxx | | xxxx | ?xx |
| Feral Pigeons | | x | x | ?xx | |

xxxx = taken in large quantities by most, probably all
xxx = taken in quantity by very many birds
xx = taken in small amounts or by relatively small numbers of birds
x = taken by only a few individuals
The term "bread" covers all artificial foods provided by the general public

Scientific names of plants mentioned: knot-grass (*Polygonum aviculare*), plantain (*Plantago* spp.), elm (*Ulmus* spp.), plane (*Plantanus acerifolia*), ash (*Fraxinus excelsior*), lilac (*Syringa* spp.), hawthorn (*Crataegus monogyna*), privet (*Ligustrum vulgare*), acorns of oak (*Quercus* spp.), clover (*Trifolium* spp.)

in St. James's Park, with its small size and very dense pigeon population, this difference in feeding distribution of most members of the two species for most of the time holds good to some extent. For example, by the bridge or the tea stall one will commonly find forty or fifty Feral Pigeons being fed with perhaps two or three Woodpigeons, while a picnic party in deck chairs on the grass in a place less congested with humans will be giving hand-outs to perhaps nine or ten Woodpigeons and a pair or two of Ferals.

Woodpigeons appear to be much more ill at ease when feeding very close to others of their species than are Ferals. They also show some dislike of shouldering among a dense feeding flock of the latter species (although some individuals will habitually do so). This is not, I think, entirely due to territorial aggressiveness (or fear of it) by the Woodpigeons which hold territory in parks and squares where no Feral Pigeon does—since the individuals of winter feeding flocks of Woodpigeons in the country usually space themselves further apart than feeding Feral Pigeons or Stock Doves do.

Woodpigeons frequently find and come down to sources of artificial food through being attracted by the sight of Ferals feeding or alighting to feed, but they commonly avoid settling among any large and fairly dense aggregation of the latter. Thus, although I have often seen

Woodpigeons perched in the plane trees around Trafalgar Square (where one pair nests annually), I have only once seen one on the ground there and this was at a time when there were far fewer people and Feral Pigeons than are usually present.

Feral Pigeons tend to concentrate in rather circumscribed areas where much bread and other artificial food (varying from cheese and chocolate to peas and potato chips) is provided. When feeding on the flowers and seeds of grasses, plantain or knot-grass they spread out more over the greensward and small parties, pairs and single birds can usually be found seeking food well away from areas where most of their species are feeding. I agree with Gompertz (1957) about the relatively small distances that most Ferals in London travel to feed. I think, however, that some individuals do make longer flights to and from feeding grounds because in many places one can watch birds coming and going in small parties, pairs and singletons, flying very fast and straight, ignoring and ignored by the numerous groups of feeding Ferals over which they pass.

The Woodpigeon and the Feral Pigeon in London do not compete with one another for natural foods since those taken *in quantity* by both species are superabundant when available at all. Competition between the two for bread and other foods given by the public obtains to some extent, though less so than between individuals of the same species. Direct inter-specific aggression and fighting over food occurs only when a Woodpigeon and Feral Pigeon both wish to perch on a food-giving hand or on a small window ledge or similar place. On such occasions either species may succeed in dislodging its rival; though, if the two are fighting on a window sill, the Feral is more often the victor because of its specific behavioural adaptations for fighting on ledges.

The Woodpigeon is able to swallow larger objects than is the Feral Pigeon. Since many bird-feeding people habitually break bread into pieces which are too large for a Feral Pigeon to swallow though some of them can just be engulfed by a hungry and determined Woodpigeon, this gives some advantage to the latter species. Although such people are, apparently, incapable of grasping the connection between the size of the pieces of bread given and the difficulties the pigeons experience, many Woodpigeons are more perceptive and as soon as they see a Feral attempting to swallow an over-large morsel they hurry to it and try, often with success, to "take the bread from its mouth".

Such competition is, however, negligible as compared with that existing between London's pigeons and three other birds, the Black-headed Gull (*Larus ridibundus*), the Mallard (*Anas platyrhynchos*) and the House Sparrow (*Passer domesticus*). All these compete for food with the pigeons, particularly during cold winter weather. The most

serious competitor is, undoubtedly, the Black-headed Gull which is, however, present in large numbers only from October to March. This species is very quick to notice anybody giving food or the movements of other birds when being fed; it can quickly swallow very large morsels of food and will seize and carry away much larger pieces than it can swallow; it is bold and aggressive and will push into a close-packed feeding flock of Feral Pigeons or other birds, pecking "right, left and centre" in order to clear a way for itself and to intimidate any bird that has actually got food. It not only does this in the parks and along the embankments but habitually descends when food is put out on high window ledges, usually clearing the lot in a few seconds. Thus, the multitudinous (if individually small) hand-outs of food from the hundreds of people who put scraps on high window sills or roof-gardens are food sources for Feral Pigeons and often also for Woodpigeons, House Sparrows and Starlings during the late spring and summer; but in winter they supply only a few small crumbs, if anything at all, to these species. Low-storey window sills, on the other hand, are seldom visited by gulls, although pigeons and sparrows will come freely to them. The gulls also feed at times in some streets and small squares. Here, however, they are usually in lesser numbers and often nervous and hesitant, so that on the whole they take only a very small proportion of the food put out for birds in such places.

The methods and effects of competing Mallards are rather similar to those of the gulls, so far as the unlucky pigeons are concerned. Mallards, however, normally compete only with those pigeons that feed in St. James's Park or in the immediate vicinity of the waters in other parks.

The third competitor, the House Sparrow, is widespread in the parks and in most other places where pigeons are likely to be fed. It cannot force its way into a scrum of feeding Feral Pigeons, but it will very quickly and expeditiously dart down into any opening to seize and carry off a piece of bread. Owing to its smaller size and chubbier build it arouses the parental impulses of most bird-feeding humans more than do the Mallards, pigeons, gulls, etc. Hence these people often make some efforts to help the sparrow by throwing morsels direct to it or into places where it will have room and time to fly down and seize them, and the bird is sufficiently quick-witted to co-operate with all such efforts on its behalf. When such attempts are made to ensure that it gets the food given, the sparrow usually does so, unless there are many Black-headed Gulls present. Even when food is thrown down more or less haphazardly the sparrow often manages to secure an appreciable amount unless the pieces are too large for it to carry away.

Without having some idea of the extent to which the presence of

birds like gulls and ducks stimulates people to give food, it is impossible to know how seriously this competition from other species affects the numbers of pigeons able to subsist in inner London. So far as feeding on roofs and the higher window ledges is concerned, there can be little doubt that the Black-headed Gulls are entirely inimical to the pigeons. Elsewhere the position is less clear. In winter it is likely that fewer people would bring food to the parks or the embankments if there were no gulls or ducks but only pigeons to feed. But it is impossible to say whether the food involved would in such case be given to pigeons nearer home, used for human consumption, or otherwise disposed of.

London gives considerable scope for originality and initiative on the part of individual pigeons. In particular mutual recognition between individuals of *Homo* and *Columba* tends to be gratifying to the former and hence rewarding to the latter. It is surprising how quickly a pigeon, even one feeding in such a place as Trafalgar Square, will learn to recognise a man or woman who has singled it out on a few occasions for generous treatment. This mutual recognition often appears to play a big rôle in the survival of crippled or hook-billed Ferals.

There appears to be considerable difference between *livia* and *palumbus* in the manner in which the young learn to take bread and to come to human beings for food. Young Feral Pigeons follow the adults, particularly their father, to the feeding places and soon learn from their example to eat bread. By the time they are independent, or *very* soon after, almost all young Ferals have learnt to eat bread, and many of them to approach any human beings who show signs that they may give food. On the other hand, although a very few young Woodpigeons learn these things at a comparable age, the majority acquire this knowledge much later in life and most of them are, at the youngest, half way through their post-juvenile moult before they begin to connect the appearance of bread with the person giving it. The few young Woodpigeons that have early learnt to eat bread will, in their eagerness for food, press more freely than adults usually do among either their own kind or among Ferals; but most young Woodpigeons tend to avoid the close proximity of adults. This is probably due to the hostile behaviour of the latter.

Trespassing juvenile Woodpigeons seem to arouse even more hostility from territory owners than do other adults. Even a fledgling that has left the nest prematurely and blundered into a tree "owned" by a neighbouring pair will be attacked without mercy and pecked and clouted until it falls to the ground, in spite of its efforts to cling to the branches. Adult Woodpigeons will often attack recently fledged juveniles in situations where they tolerate the presence of other adults.

I think that parent Woodpigeons usually attack and drive off their young when they have ceased to feed them, but I have only seen proof—as distinct from circumstancial evidence of this—with a single pair.

The Stock Dove does not appear to feed to any extent in inner London. Even in Kensington Gardens, where it breeds plentifully, I have seldom seen one on the ground except when gathering nesting material. In spite of keeping a keen look-out for feeding Stock Doves I have only the following records. In the early spring of 1955 I twice saw a Stock Dove (almost certainly the same individual) in Kensington Gardens fly down to an area where Woodpigeons had been given bread and glean some of the minute crumbs that were left. In the same year I saw two Stock Doves on the ground in Kensington Gardens in an area that had been newly dug. They were looking for food although I did not actually see them find or eat anything. In the summer of 1957 a sickly juvenile, too starved and emaciated to fly, lived for some weeks in St. James's Park and came with the Feral Pigeons to people for food. I never saw it succeed in getting any of the bread except when I picked it up (it was so starved that its escape reactions were very slight indeed), put it and some food between my boots and fended off the Feral Pigeons and Mallards while it ate.

All the circumstancial evidence suggests that the Stock Doves of inner London fly right outside to feed. The most likely explanation of why they have not (so far) taken to feeding in town would seem to be because the Feral and Woodpigeons, between them, are fully exploiting all the food resources available. However, the fact that both Woodpigeons and Feral Pigeons have very greatly increased since the end of the war argues against this hypothesis. There are now very many more Feral Pigeons to be observed in inner London than there were in October 1946; the Woodpigeon has also increased greatly (see Cramp 1957) and it is probable that the Stock Dove has also increased in the same period. However, many of the natural foods taken by London Woodpigeons are not available to the Stock Dove, owing to its ground-feeding habits, smaller gullet and probably also to differing dietary preferences and digestive abilities. As far as natural foods are concerned the preferences of Stock Doves and Feral Pigeons appear to coincide (Goodwin 1954 and 1955), but in London the Feral Pigeons rely largely on "bread". In times of plenty for human beings the amount given is, to some extent, controlled by the number of pigeons present in any particular feeding place. Many more people will bring food to a flock of five hundred pigeons than will to a party of five. Hence it is probable that, even when the Feral Pigeon population was much smaller than it now is, there have been few times and places when food has been given in sufficient quantity over a period long enough to have provided *good* opportunity for a

Stock Dove to learn to eat "bread" and to come to people to get it. Nor does it seem likely that Stock Doves would be able to compete successfully for "bread" with Ferals in hard weather. It is possible, however, that sooner or later some individuals will make the attempt and if so, it is to be hoped that the success or failure of their efforts will be observed and recorded.

## NESTING

So far as is known, all the Feral Pigeons breeding in London nest in or on buildings; most of the Woodpigeons nest in the branches of trees; and all the Stock Doves nest in holes in trees. I have observed one instance (and have seen two others in country districts) of a pair of Woodpigeons nesting in a tree-hollow such as a Stock Dove might use and London Woodpigeons quite often nest on ledges and in recesses of buildings.

I have never seen competition for a nest-site between *palumbus* and *livia*, but I have little doubt that the presence of a pair of the latter "already in possession" must often deter house-hunting Woodpigeons. The Woodpigeon seems rather more adapt at getting a nest built on a "sub-optimal" ledge. In one case a pair of Woodpigeons successfully built on a range of pipes beneath the shelter of a colonnade where a pair of Ferals had tried in vain to lodge material. After the young Woodpigeons fledged, the nest was taken over by the Ferals who reared brood after brood on it (adding fresh nesting material each time, of course) for the next three years, until it was destroyed by a Ministry of Works official.

Contrary to popular opinion, there is not a superabundance of nest sites for the Feral Pigeons. I have very seldom seen a place that looked to me as if it would make a reasonable nest-site for Feral Pigeons that did not already have a pair in possession. On the other hand, I have watched dozens of pairs trying to nest in obviously impossible places; and one or more pairs of Feral Pigeons frantically but vainly searching for nest-sites can be seen almost anywhere in London any bright morning in late winter, spring or early summer. Although it is not difficult to induce domestic pigeons to nest in boxes fixed on trees, London's Ferals appear never to nest in holes in trees or attempt to do so. I think the probable reasons are that, although they perch freely on trees in the parks and some of the squares, as soon as they get into a "nest-site seeking" mood they at once fly back to the buildings. At present, however, with the increasing destruction of old buildings, the construction of new ones of modern design (or lack of design) and the ever-increasing tendency to wire over old-established nest-sites in churches and elsewhere, the time would seem ripe for experimentation. At least two pairs of Feral Pigeons have been

TABLE III—NEST DEPARTURES OF YOUNG WOODPIGEONS (*Columba palumbus*) AND FERAL PIGEONS (*C. livia*) IN LONDON

| | January | February | March | April | May | June |
|---|---|---|---|---|---|---|
| Woodpigeons | | | | x | xxx | xxxx |
| Feral Pigeons | x | x | xx | xxx | xxxx | xxxx |

| | July | August | September | October | November | December |
|---|---|---|---|---|---|---|
| Woodpigeons | xxxx | xxxx | xxx | xx | | |
| Feral Pigeons | xxxx | xxxx | xxx | xx | x | x |

xxxx = large numbers
xxx = considerable numbers
xx = small numbers
x = very few (less than 1 in 400 of year's total)

noted showing breeding behaviour on old Woodpigeons' nests in trees (S. Cramp in *London Bird Report 1957*, p. 24) and it will be interesting to see if any reversal to the (presumed) pre-Rock Dove ancestral habit of tree-nesting occurs in the future. Should *livia* ever take to nesting in tree holes in London, it would come directly into competition with *oenas*. The latter's breeding only in tree holes in London is, presumably, due to all possible sites in buildings being occupied by Feral Pigeons. In this connection it must be mentioned that pairs of both species like to have two nest sites which they can use alternately. Normally, they seldom use the same site for successive broods. However, the vast majority of breeding Feral Pigeons in London have to make do with only one nest site and in some areas there are very many pairs who have no nesting place in spite of constant searching.

As will be seen from Table III, *livia* has a much longer breeding season in inner London than has *palumbus*. Their reproductive peaks largely coincide, however, and only a very small minority of young Ferals are being reared during the period that Woodpigeons are producing no young. In both species the maximum numbers of young are produced in late spring and summer. At this period the supply of "bread" is at a maximum, due to the very much larger number of people having meals out of doors. Also there is then no serious competition from Black-headed Gulls, as only a few of these birds return to London in late June or July. It must be stressed that, although most Feral Pigeons show sexual and nesting behaviour in autumn, as soon as they have completed the main phase of their moult (which, in both species, usually occurs in September), the majority do not breed *successfully* until spring. The very few young fledging in winter are probably all the offspring of pairs whose individual circumstances are such that they have a regular daily supply of food that is not influenced by the factors affecting the majority. Feral Pigeons, and most domestic pigeons, kept at liberty and given a

constant and adequate food supply may begin to breed in October, but many, even in these conditions, do not lay till February or early March.

Some London Woodpigeons show keen interest in their old breeding sites, and in the old nests themselves if they remain in the tree, as early as the latter part of November. It is quite possible that a "lucky" pair with an assured food supply might breed successfully in winter. I have, however, never seen a recently-fledged young Woodpigeon, in London, before the latter part of April or after October.* In the country I have, on a few occasions, seen recently fledged young in November and (once) December, but never before mid-May in spring.

## ROOSTING

The Woodpigeon in London roosts on trees; the Feral Pigeon on buildings. The large communal roosts of the Woodpigeon have been described elsewhere (Homes *et al.* 1957). The roosting habits of the Feral Pigeon have also been discussed previously (Gompertz 1957, Goodwin 1954), but a few aspects pertinent to the present paper and, perhaps, not sufficiently emphasised before must be mentioned here.

Both species show a strong tendency to roost in company, although this tendency is much weaker in breeding than in non-breeding birds and also appears to vary a good deal individually. Many pairs or even single specimens of *livia* do habitually roost alone (see Gompertz 1957), but I have seen even "driving" (and therefore certainly sexually active) pairs of Ferals coming in to communal roosts *not* in the immediate vicinity of their nest-sites. Similarly, even after taking up their breeding territories some Woodpigeons tend to form small communal roosts. Often these roosts centre about the territory of a pair who are actively hostile but do not succeed—till next morning—in driving the visitors away. Once nest-building begins, paired Woodpigeons often sleep together by themselves in the nest tree or one adjacent to it, but the male ceases to do so when incubation starts. It is highly probable that such pairs of Woodpigeons as nest inside large stations roost in the building during the nest-construction period at least. The difficulty of noticing and observing pigeons roosting in high, sheltered parts of buildings (compared with the ease with which they can be seen in bare trees) must, I feel, be borne in mind where the lack of records of Woodpigeons roosting on buildings is concerned. Paired Woodpigeons often sleep snuggled side by side on the same branch and paired Ferals are often in physical contact when roosting. But, except for its mate or still dependent young, no healthy adult of either species will tolerate another individual within (at least) pecking distance, even at a communal roost in winter.

* After the above was written, I saw a juvenile Woodpigeon in Holland Park in March 1960.

The two species do not in any way conflict with one another in their roosting. At some of the big communal roosts Woodpigeons suffer much from Carrion Crows (*Corvus corone*) which persistently swoop at them, putting them to flight again and again. Even although, as a rule, only from one to twenty Woodpigeons are disturbed at each swooping attack, it is surprising that roosts do not seem to be deserted from this cause. Around Trafalgar Square the Feral Pigeons come into competition with the hordes of roosting Starlings (*Sturnus vulgaris*) since both choose for preference the same type of roosting place—a ledge or niche sheltered from rain and wind. Individually, Feral Pigeons often win in contest with Starlings for a particular section of ledge. It is probable, however, that the Starling has an adverse effect on the larger bird. Many individual Feral Pigeons get badly fouled by Starlings' excrement falling on them in quantity while they roost. Such specimens usually seem in very poor health. Possibly they are usually weak, sick or particularly unenterprising individuals that have to use such unstrategic roosting sites, but, even allowing for this, the fouling must contribute to their wretchedness. Since the Starlings, even more than the pigeons, arouse the wrath of bureaucracy, they may also often be unwittingly responsible for measures being taken which cause Feral Pigeons to lose both roosting and nesting sites.

REFERENCES

CRAMP, S. (1958): "Territorial and other behaviour of the Woodpigeon". *Bird Study*, 5: 55-66.

GOMPERTZ, T. (1957): "Some observations on the Feral Pigeon in London". *Bird Study*, 4: 2-13.

GOODWIN, D. (1954): "Notes on Feral Pigeons". *Avic. Mag.*, 60: 190-213.

——— (1955): "Notes on European wild pigeons". *Avic. Mag.*, 61: 54-85.

HOMES, R. C., *et al.* (1957): *The Birds of the London Area since 1900*. London. pp. 113-115.

# Observations on the use by sea-birds of human fishing activities

*By Jeffery Boswall*

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AT THE BEGINNING of August 1959 I sailed from Lochinver on the west coast of Sutherland in the motor fishing vessel *Olive Leaf* (Master: Campbell Thomson) and spent four days at sea. The majority of this time was passed seine-net fishing in the vicinity of the sub-oceanic islands of North Rona and Sula Sgeir, fifty miles north-west of Cape Wrath, the most north-westerly tip of the Scottish mainland.

Night and day, while fishing was in progress, the vessel was constantly attended by up to three hundred sea-birds of six different species seeking to gain food from our activities: Fulmars (*Fulmarus glacialis*), Gannets (*Sula bassana*), Great Black-backed Gulls (*Larus marinus*), Lesser Black-backed Gulls (*L. fuscus*), Herring Gulls (*L. argentatus*), and Kittiwakes (*Rissa tridactyla*).

It will give some indication of the proportions of the different species involved if I detail a count which I made at about 21.00 hours BST on 5th August near North Rona. An approximate total of 153 birds was made up of about 110 Fulmars, 6 Gannets (3 immature), about 90 Great Black-backs (3 immature), 2 Lesser Black-backs and 5 Herring Gulls (2 immature), and about 40 Kittiwakes (1 immature). Details of a second count are given in Table I. It can be seen that the number in immature plumage was negligible and it seems reasonable to assume that the majority of the birds were from the breeding populations of North Rona and Sula Sgeir. This view is supported by our catching of a Fulmar which had been ringed on 4th June the previous year on North Rona (ring number 302.3173, age unknown).

The food made available by our activities fell into two distinct categories: gut from the saleable fish, and unsaleable fish. All saleable fish caught were gutted at sea, the gut being thrown overboard as each one was cleaned. Gut here includes both liver and entrails. I was told that trawlers—as opposed to seine-netters—collect the liver and extract the oil on board before throwing the rest away.

The quantity of gut thrown overboard varies directly with the amount of fish caught. My skipper carefully estimated that for each seven-stone box (98 lb.) of gutted fish landed, at least one stone (14 lb.) of gut had gone overboard. Some indication of the total amount involved can be got from the fact that after the second part of our voyage (we had returned to port for a few hours on the night of 4th/5th August and I finally disembarked on the 6th) we landed 119 boxes of saleable fish—103 of Haddock (*Gadus aeglefinus*), 15 of skate (*Raia* sp.) and one of Plaice (*Pleuronectes platessa*). This meant that, during a total of 24 hours' fishing in two days, rather over two hundredweight of gut (238 lb.) had been thrown overboard.

Gut made available in this way was commonly eaten by the Fulmar and the four species of gull, and once by a Gannet. To gain a preliminary idea of how much went to each species I traced the fate of a sample of a hundred pieces of gut from the time each left a fisherman's hand until it was eaten or sank (see Table I). The ship at the time this sample was taken was moving at eight knots, as she regularly did when setting the net or moving to new grounds. It was particularly noticeable, however, when the net was being hauled in and the boat was near-stationary, that all the birds except the Fulmars sat on the

water twenty or thirty yards away; these last came right alongside and ate almost all the gut, losing only a very little to a few intruding Kittiwakes. Then when the boat gathered speed again the gulls would rise from the water, a few Gannets would appear, and these birds would constantly fly round the ship coming up head-to-wind on the gutting side and hover or glide there as long as possible, diving for the food as it dropped to the surface. In this situation (boat *moving*) the gulls and Gannet had a distinct advantage over the Fulmars which had to half-fly and half-paddle over the water from a surface position. The four gulls also had another advantage in that they could alight on the gunwale.

TABLE I—THE FATE OF 100 PIECES OF FISH GUT THROWN OVERBOARD FROM A MOVING FISHING VESSEL NEAR NORTH RONA, SCOTLAND, AT ABOUT 09.00 HOURS BST ON 6TH AUGUST 1959

Approximately 300 birds were around the ship at the time. Of the 100 pieces of gut thrown one by one, 5 were lost and the remaining 95 were eaten by birds as set out below. Five pieces were divided, in each case by a Fulmar and a Great Black-backed Gull. The two immature *fuscus/argentatus*, which for convenience are included in the Herring Gull total, were not seen to eat.

| | Number present | Pieces eaten |
|---|---|---|
| Fulmar (*Fulmarus glacialis*) .. .. .. | *ca.* 155 | 39½ |
| Gannet (*Sula bassana*) .. .. .. | 5 (3 imm.) | 1 |
| Great Black-backed Gull (*Larus marinus*) .. | *ca.* 90 (5 imm.) | 32½ |
| Lesser Black-backed Gull (*Larus fuscus*) .. | 1 } (2 imm.) | 3 |
| Herring Gull (*Larus argentatus*) .. .. | 15 } | 14 |
| Kittiwake (*Rissa tridactyla*) .. .. .. | *ca.* 35 (1 imm.) | 5 |

The second category of food was the unsaleable fish thrown overboard. Unlike the gut the quantity of this bears no direct relation to the amount of saleable fish caught, some hauls being very much "cleaner" than others, depending on the nature of the bottom, the district and the season. It may be worth mentioning that during the second part of the voyage, when 119 seven-stone boxes of saleable fish were landed, a careful estimate showed that at least 8 seven-stone boxes of unsaleable fish were returned to the sea.

All were dead when discarded and except for the three heaviest species—which were too large for birds to eat anyway—they sank quite slowly. The vast majority of this fish, weight for weight, consisted of gurnets (*Trigla* sp.) 7-9 inches long, most of which were eaten by Great Black-backed Gulls, some by Gannets, and a few by the two other *Larus* gulls, while only a very few sank. Small flat fish 6-8 inches long (probably *Solea variegata*) were sometimes eaten by the three *Larus* gulls and by Gannets, but many sank. Three cuttlefish

(*Sepia* sp.) were tackled by Great Black-backed Gulls and Fulmars. The three larger species of fish mentioned were Larger Spotted Dogfish (*Scyliorhinus stellaris*), another dogfish (probably *Mustelus* sp.) and an occasional Angler Fish (*Lophius piscatorius*).

### OTHER SPECIES

In conclusion, it may be of interest to make brief mention of the other sea-birds which I noted during the voyage, though these were not taking the food thrown overboard. Up to twenty-five Storm Petrels (*Hydrobates pelagicus*) were seen round the boat each day. Two Manx Shearwaters (*Procellaria puffinus*) were seen on 4th August, and a distant bird probably of this species on the 6th. Following a probable Great Shearwater (*P. gravis*) on the 5th, a much closer bird was clearly identified the next day. A Sooty Shearwater (*P. grisea*) alighted within ten yards of the boat on the 3rd and another was spotted two days later. Numbers of Shags (*Phalacrocorax aristotelis*) were seen in the vicinity of Sula Sgeir, and Great Skuas (*Catharacta skua*) appeared as follows: one on 3rd, two on 4th and one on 5th. Puffins (*Fratercula arctica*) were the only other sea-birds seen.

## Migrants at station "Juliett" in September 1959

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THERE WERE several interesting occurrences of land-birds (including waders and terns) at O.W.S. *Weather Observer* at station "Juliett" in the east Atlantic Ocean, near latitude 52°30′ N. and longitude 20°W., between 13th and 29th September 1959. This position is 400 miles west of Co. Kerry, Ireland, and 800 miles south of Iceland.

During the first week of the period an anticyclone covered the north-east Atlantic, and the birds are likely to have been drift-migrants from south-western Britain or north-western France, carried out to sea by the light easterly and south-easterly winds. It is possible that the Meadow Pipits of the 16th were displaced during a south-eastwards migration from Iceland to the British Isles when coming within the easterly airflow on the south side of the high: their distressed condition points to a long sea-crossing. It is conceivable that the Turnstones could have crossed the Atlantic, since they appeared on dates when "Juliett" was on the southern periphery of depressions centred in Denmark Strait, and exposed to a fresh westerly airstream. With the

anticyclone situated to east and south of "Juliett" at the end of the month, the few drift-migrants seem likely to have originated in the Biscay region of France or even northern Spain.

The time of arrival of each bird is given in G.M.T. following the date, together with a note of the weather and visibility. The wind-direction is shown by the number of degrees declination from North, together with the speed which is in knots.

## SYSTEMATIC LIST

**Kestrel** (*Falco tinnunculus*). 13th September, 07.30 hours, cloudy, good visibility, wind 110°/20: a female, reluctant to fly when disturbed, spent most of its time on the balloon shed deckhead before leaving overnight on the 13th/14th. 15th September, 13.10 hours, cloudy, moderate visibility, wind 080°/19: a female circled for about an hour before alighting on an anchor; it was very easily disturbed and reluctant to settle, but made the starboard anchor its roosting-place and favourite day-time perch for an "off-passage" stay which lasted till 14.00 hours on the 18th; during this time it killed a number of small birds (see FEEDING HABITS).

**Turnstone** (*Arenaria interpres*). 19th September, 14.25 hours, cloudy, good visibility, wind 200°/20: after spending most of its time in the balloon shed this bird left overnight on the 20th/21st; it weighed 70.34 gm. at 18.45 hours on the 19th, a very low weight for this species (usually 100-130 gm.). 23rd September, 17.37 hours, cloudy, good visibility, wind 220°/21: one circled the ship for ten minutes.

**Phalaropes** (*Phalaropus* sp.). In all, 26 were seen and these are listed in Table I. The only one seen at close quarters had the head slender and delicate, with a very fine bill.

TABLE I—PHALAROPES (*Phalaropus* sp.) AT STATION "JULIETT" SEPTEMBER 1959

| Date | Time GMT | Wind | Weather | Visibility | No. of birds | Remarks |
|---|---|---|---|---|---|---|
| 10 | 11.05 | 170°/09 | c | v. good | 1 | Feeding close to ship till 11.29* |
| | 11.19 | 170°/09 | c | v. good | 3 | Flew S |
| 16 | 14.00 | 070°/16 | bc | good | 3 | Flew SSW |
| 18 | 10.00 | calm | b | v. good | 3 | Flew NW |
| | 14.00 | calm | b | v. good | 12 | Feeding at mod. distance for 45 mins. |
| 25 | 14.00 | 290°/25 | c | v. good | 1 | Feeding fairly close* |
| 28 | 14.00 | 350°/10 | c | v. good | 1 | Feeding at mod. distance* |
| 30 | 14.00 | 230°/23 | bjp | v. good | 2 | Feeding close to ship* |

*Feeding in association with Wilson's Petrels (*Oceanites oceanicus*)

**Terns** (*Sterna* sp.). Observations of terns are given in Table II. An immature Arctic Tern (*S. macrura*) perched on the stern gunwale at 07.20 hours on the 18th and was picked up after a quiet approach.

TABLE II—TERNS (*Sterna* sp.) AT STATION "JULIETT", SEPTEMBER 1959

| Date | Time GMT | Wind | Weather | Visibility | No. of birds | Remarks |
|---|---|---|---|---|---|---|
| 10 | 11.16 | 170°/09 | c | v. good | 1 | Circling for 10 mins., flew S |
| | 18.00 | 100°/13 | bc | good | 1 | Mobbing imm. gulls, flew E |
| 11 | 10.00 | 160°/14 | b | v. good | 1 | In vicinity 20 mins. |
| | 19.07 | 100°/13 | bc | good | 2 | In vicinity 15 mins. |
| 16 | 15.00 | 060°/16 | c | good | 2 | Mobbing Kestrel for 15 mins. |
| 18 | 07.20 | calm | b | v. good | 1 | Caught while resting on gunwale |
| | 10.00 | calm | b | v. good | 4 | Circling for 20 mins. |
| | 14.00 | 180°/02 | b | v. good | 1 | Circling for 10 mins. |
| 30 | 14.00 | 230°/23 | bjp | v. good | 1 | Circling near ship |
| 2 Oct. | 10.00 | 160°/16 | cir | v. good | 1 | Flying S |

**Wheatear** (*Oenanthe oenanthe*). 15th September, 15.03 hours, fair, moderate visibility, wind 080°/19: this bird, which probably fell prey to the second Kestrel, was active and restless at first, but less so early on the 16th, when it was last seen at 10.20 hours. 28th September, 04.50 hours, rain, moderate visibility, wind 220°/16: this flew into the balloon shed, and later into an alleyway where it was caught, only to escape in the meteorological office, where it stayed till 12.55 hours on 3rd October, when we were approaching the Irish coast at latitude 53°55′N., longitude 12°38′W., in fine, sunny weather. 29th September, 17.40 hours, rain, visibility good, wind 180°/28: this bird was probably blown or washed away during a severe gale overnight.

**Willow Warbler** or **Chiffchaff** (*Phylloscopus trochilus* or *collybita*). 17th September, 16.49 hours, fair, visibility very good, wind 050°/05: a very active bird, last seen at 19.00 hours.

**Garden Warbler** (*Sylvia borin*). 17th September, 14.00 hours, cloudy, very good visibility, wind 060°/05: very active, but approachable; killed by the Kestrel at 17.15 hours.

**Spotted Flycatcher** (*Muscicapa striata*). 17th September, 10.05 hours, fair, visibility very good, wind 050°/05: caught at 19.10 hours, this bird was of quite good weight, 10.97 gm. (wing 84 mm., tail 54 mm.); it was last seen at 19.40 hours.

**Red-breasted Flycatcher** (*Muscicapa parva*). 16th September, 19.35 hours, cloudy, good visibility, wind 090°/10: a female or young bird,

it first entered the balloon shed, and later at 02.00 hours on the 17th the W/T office, where it was caught; its weight was good at 7.95 gm. (wing 67 mm., tail 49 mm.); it was last seen at 06.30 hours on the 17th.

**White Wagtail** (*Motacilla a. alba*). 13th September, 10.32 hours, cloudy, good visibility, wind 110°/20: this female died at 18.00 hours on the 15th, weighing only 11.27 gm., or rather less than half the normal autumn weight of the species.

**Yellow Wagtail** (*Motacilla flava*). 29th September, 14.55 hours, rain, good visibility, wind 060°/18: this bird was probably washed or blown away during a severe gale overnight.

**Meadow Pipit** (*Anthus pratensis*). There was a movement on 16th September, as shown in Table III. The first to die from exhaustion weighed 12.77 gm. (wing 82 mm.) and the second 12.39 gm. (wing 83 mm.) soon after death: these weights are a little more than half the normal for Meadow Pipits before migration. A bird which settled aboard at 08.57 hours on 13th and left during the night weighed 13.29 gm. at 19.05 hours, and was active and restless.

TABLE III—MEADOW PIPITS (*Anthus pratensis*) AT STATION "JULIETT" SEPTEMBER 1959

| Date | Time GMT | Wind | Weather | Visibility | No. of birds | Remarks |
|---|---|---|---|---|---|---|
| 16 | 09.47 | 060°/18 | c | good | 1 | Killed immediately by Kestrel |
| | 10.00 | 060°/18 | c | good | 1 | Killed at 13.40 by Kestrel |
| | 14.00 | 070°/16 | bc | good | 1 | Killed at 16.30 by Kestrel |
| | 15.00 | 060°/16 | c | good | 1 | Died of exhaustion 09.55 on 17th |
| | 16.40 | 080°/14 | bc | good | 3 | 1 killed by Kestrel 07.30 on 17th<br>1 died of exhaustion 14.00 on 17th<br>1 probably killed by Kestrel on 18th |

FEEDING HABITS

The Kestrel which remained "off-passage" at the ship from 15th-18th September killed and ate at least five, possibly seven, migrants. It would circle the ship, and when it spotted a small migrant out in the open would come in very fast and try to pick up its victim from the deck. Four Meadow Pipits and a Garden Warbler were killed in this way, and on two occasions it was seen to pluck and eat its prey on the wing. A pellet was found on the anchor where it roosted. This is the second case to have come to our notice of a bird of prey remaining

"off-passage" at a weather-ship, the first concerning a Merlin (*Falco columbarius*) at station "India" (*Brit. Birds*, 51: 157-158).

From 15th-17th September a number of moths were to be seen around the ship's lights at night: probably these were migrant Silver Y moths (*Plusia gamma*) brought to "Juliett" by the east and south-east winds. Several of the migrants were seen to catch and eat these moths, including the two flycatchers and the Willow Warbler or Chiffchaff.

The Wheatear of the 28th caught moths and flies during its five-and-a-half days' stay and showed no interest in mealworms, though it drank water. The Turnstone of the 19th ate mealworms readily, and one of the Meadow Pipits took dried flies. The first Kestrel ate scraps of raw meat and mealworms put out for it, and the White Wagtail of the 13th pecked at scraps of meat and took water.

SUMMARY

(1) In the second half of September 1959 ten species of land-birds, drifted by anticyclonic easterly and south-easterly winds, occurred at a weather-ship 400 miles west of Ireland. Records of migrant terns and phalaropes are also given.

(2) One Kestrel remained "off-passage" for three days, preying on small birds; several of the latter caught and ate migratory moths, and a few took mealworms.

(3) A White Wagtail and two Meadow Pipits which died of starvation following exhaustion were about half the normal weight for these species.

# The National Collection of Nature Photographs and some examples of the best recent work by British bird-photographers

(Plates 25-32)

In 1955, the Nature Conservancy, with co-operation from the Zoological Photographic Club and the Nature Photographic Society, started a National Collection of Nature Photographs to consist of outstanding pictures of birds (photographed "wild and free") and other animals and plants.

An Advisory Committee was established to select photographs for the National Collection and to advise the Conservancy generally on related matters. The members of the Committee are Eric Hosking (Chairman), H. R. Lowes, John Markham, S. Beaufoy, Miss Anne Jackson, R. H. Hall and W. S. Pitt. The pictures are divided into three categories: a national collection of the highest standard of

contemporary photography; an historical collection; and a working collection especially illustrating the natural history of Nature Reserves.

The general aim is to build a basic collection of a high standard to cover as many as possible of the species found in Great Britain. The collection is constantly being added to, and those photographers who have been approached have generously contributed prints of the selected photographs.

The Conservancy have offered facilities and help to experienced photographers on their Reserves, subject, of course, to any essential restrictions regarding rare birds or scientific experiments.

The loss or destruction of many valuable and irreplaceable collections of negatives and prints of wild life taken by early photographers has caused considerable concern amongst naturalists, photographers and the Conservancy. British bird-photographers led the world in their achievements and this makes it all the more unfortunate that so few of their most remarkable prints have survived (some of them, although over 60 years old, still equal in quality the best of the present-day work). None of the unique originals of the famous Kearton brothers, C. W. R. Knight, G. A. Booth and others, who were among the first in this field, has been traced for the National Collection; only one or two prints—and even those are not the best—remain of such pioneers as R. B. Lodge, Riley Fortune, Bentley Beetham and O. J. Wilkinson. However, fuller records are fortunately available of the earlier work of some other photographers like Arthur Brook, Alfred Taylor and Stanley Crook, not to mention Oliver G. Pike whose unique sequence of a Cuckoo (*Cuculus canorus*) laying in the nest of a Meadow Pipit (*Anthus pratensis*) was described by him and illustrated recently in this journal (*Brit Birds*, 52: 226-228, plates 43-44).

In spite of the keenness and enthusiasm of these bird photographers and their modern successors, many of the birds on the British list remain entirely unrepresented in the National Collection, e.g. Barnacle, Brent and Canada Geese (*Branta leucopsis, bernicla* and *canadensis*), Bean and White-fronted Geese (*Anser arvensis* and *albifrons*), and Great and Sooty Shearwaters (*Procellaria gravis* and *grisea*). Even so, the Collection now numbers over 900 photographs, of which some 500 are of birds.

This issue contains a selection of photographs (plates 25-32) which are among the best taken in the past year or two and which represent something rather different from our normal series. It has always been our policy to publish photographs for their ornithological value rather than for their aesthetic properties or their technical excellence. In the words of the late Harry Witherby (*Brit. Birds*, 50: 214), we aim to publish "photographs not merely for the sake of a portrait but for the sake of demonstrating some point (of scientific interest)".

PLATE 25. Curlew (*Numenius arquata*), Argyll, June 1959 (*J. T. Fisher*) (page 219)

PLATE 26A. Merlins (*Falco columbarius*) in crow's nest, Derby, June 1959 (*H. A. Hems*)

PLATE 26B. Hooded Crows (*Corvus corone cornix*), Shetland, June 1959 (*L. Auger*)

PLATE 27A. Snipe (*Capella gallinago*), Norfolk, August 1959 (*C. C. Doncaster*)

PLATE 27B. Shelduck (*Tadorna tadorna*), Lancashire, June 1958 (*Guy B. Farrar*)

PLATE 28. Tree Sparrow (*Passer montanus*), Essex, August 1955 (*R. E. Hitchcock*)

PLATE 29. Nuthatch (*Sitta europaea*), Yorkshire, May 1959 (*Morley Hedley*)

PLATE 31. Male Linnet (*Carduelis cannabina*), Lincolnshire, July 1959 (*R. H. Hallam*)

PLATE 30A. Reed Buntings (*Emberiza schoenichus*), Yorkshire, July 1959 (*G. A. Binks*)

PLATE 30B. Roseate Tern (*Sterna dougallii*), Anglesey, July 1959 (*D. A. P. Cooke*)

PLATE 32. Female Cirl Bunting (*Emberiza cirlus*), Devon, August 1954 (*E. H. Ware*)

Now, however, once each year, we are proposing to publish a selection of the best contemporary work by British bird photographers, with the main aim of keeping a permanent record in one journal. The next decade or two may well show great advances in photographic materials and techniques, and it will be of no little interest to be able to compare annual selections in this way. At the same time, this selection will enable our readers to see some of the more outstanding photographs of British species which are normally never represented in this journal, some of them indeed not being published anywhere. We shall also use this annual feature as a means of encouraging the work of some of the less well known and younger bird photographers; so much so that in future this factor will have a bearing on the final selection.

The photographs reproduced now are eleven of the best from those shown in the 1959 Autumn Nature Exhibition of the Royal Photographic Society. Future selections will be taken not only from this source but from many others. The final choice will be made by our photographic editor, Eric Hosking. We hope that good photographs which he is not likely to see in any other way will be submitted for his consideration and that all bird-photographers who are asked will collaborate by letting us have their prints. These should be about 8 inches by 6 inches in size with a glossy finish; the address of the photographer should be clearly written on the back with the name of the bird, the date and the county (or, if abroad, the country) in which it was taken.

# Notes

**Broken eggs in nests of Sparrowhawk.**—I can add two records to Dr. D. A. Ratcliffe's list (*Brit. Birds*, 53: 128-129) of broken eggs of Sparrowhawks (*Accipiter nisus*), one of them showing that the phenomenon goes back some time. On 7th June 1927, near Fleet Pond, Hampshire, my father, Col. R. B. Campbell, and I found a Sparrowhawk's nest in a Scots pine (*Pinus sylvestris*). Underneath was a broken egg and in the nest two fresh ones. On 20th June 1953 I found a nest in a birch (*Betula* sp.) near Cothill, Berkshire. It contained one heavily dented egg with congealed contents and one with loose contents, which proved to be addled. They were warm and the bird flew round calling while I was at the nest. I did not look for broken eggs below, where there was thick ground vegetation.

BRUCE CAMPBELL

**Rubber bands in Puffin's stomach.**—On 23rd January 1960 a first-winter Puffin (*Fratercula artica*) was found dead on the beach at Hornsea, Yorkshire. The corpse was in good condition, without any sign of oiling, and was forwarded to Mr. Alfred Hazelwood at the Bolton Museum. On dissection it was found to be a female and there were the remains of a number of rubber bands in the stomach. The bird had apparently died of acute gastritis as a result of these. It was otherwise undamaged and not drowned as so often happens with diving birds which are in impaired circumstances. There are references in the literature (for example, *Brit. Birds,* 42: 52; 43: 31; 44: 15) to rubber being found in the castings of ground-feeding or scavenging birds like Rooks (*Corvus frugilegus*), Jackdaws (*C. monedula*), Starlings (*Sturnus vulgaris*) and Black-headed Gulls (*Larus ridibundus*), but I cannot find any similar record involving an essentially marine species like the Puffin. How and where such a bird could have picked up the rubber bands is a mystery. G. R. BENNETT

**Bee-eaters diving into water.**—In view of A. J. Tree's recent note (*Brit. Birds,* 53: 130-131) on European Bee-eaters (*Merops apiaster*) diving into water, the following observations may be of importance. On 7th July 1958, whilst by the Alwand River at Khanaqin in eastern Iraq, I saw two Blue-cheeked Bee-eaters (*M. superciliosus*) gliding a foot or two above the water and constantly dropping down to pick small insects, almost certainly Diptera, from the surface. On 25th July a number of these birds were seen behaving in an identical manner, and on several occasions various individuals dived into the water so that the entire head and under-parts were immersed. Then on 31st August 1958, in the same locality, six European Bee-eaters were watched behaving in a like manner. Sometimes they dived into the water with considerable force so that the head and most of the body were submerged, and when they came up some type of insect could be seen in the bill. In these cases the prey was obviously being taken from beneath the surface. One or two birds, however, merely glided along with only the bill immersed, apparently drinking in the same manner as the Swallow (*Hirundo rustica*). BRYAN L. SAGE

**Red-rumped Swallow in Kent.**—In the late afternoon of 28th August 1959 I was watching many thousands of Sand Martins (*Riparia riparia*), Swallows (*Hirundo rustica*) and House Martins (*Delichon urbica*) feeding over the clay-pits at Murston, near Sittingbourne, Kent, when I saw a Red-rumped Swallow (*H. daurica*). During the next hour I watched this bird at ranges down to about 20 feet and noted the following points:

Nearer Swallow than House Martin in size. Crown, back, wings and tail blackish-purple (as in Swallow, rather than black as in House Martin). Sides of head and band over nape brown. Rump and entire under-parts pinkish-buff. Tail deeply forked with streamers; no white markings.

At a distance it most resembled a House Martin with pinkish-buff rump and under-parts, and was surprisingly readily picked out. Its behaviour was generally similar to that of the other Hirundines. It fed almost entirely on insects just above the surface of the water, not venturing over the reed-beds where many of the Sand Martins were feeding.

J. J. M. FLEGG

**Male Rook covering the eggs.**—In March 1959 two pairs of Rooks (*Corvus frugilegus*) had nests with eggs in a large and leafless beech at Mount Merrion, Co. Dublin. At about 10.30 a.m. on 25th March the two females were incubating and the two males were each sitting about a yard away from their respective nests. One of the males was cawing loudly and vigorously when his mate suddenly flew off, probably to feed or drink as she wiped her bill carefully when she came back. The cock continued to call for a few seconds after her departure and then deliberately hopped sideways down the branch to the vacated nest, in which he then sat so that only his beak and tail were visible. The hen arrived back at the nest about two minutes later, whereupon the cock got out of it and stood on the branch beside. The hen then sat on the nest again and was soon afterwards fed by her mate.

There were no other Rooks' nests within a quarter of a mile of these two and only the four birds were in the tree. The second pair did not move at all during the short period concerned and I was watching from a distance of only about 30 yards. Thus there is no doubt that the male did cover the eggs while the female was away and this seems of interest in view of *The Handbook*'s statement that incubation is by the female Rook alone.

CIARAN P. KANE

[We showed this note to Dr. C. J. F. Coombs who is making a particular study of this species. He has commented as follows: "Two things are most unusual about this observation. One is of course the apparently definitely established fact that the male covered the eggs, instead of just staying close to the nest as he usually does even when the female moves a few feet away from it. No less surprising, however, is the fact that the female went right away to feed or drink. The female Rook does not usually leave the area of the nest while she has eggs, though she will go a few yards to stretch and defaecate, often after the male has brought food. In fact, the female normally starts foraging for herself only when the male can no longer provide enough food for her and her young. Then she gets hungry and goes off for

her own supplies, but if there is ample food and perhaps only one youngster she may not need to do this at all and may try to brood the young right to the end. Thus it seems to me that in the incident described by Mr. Kane the real abnormality may have been the fact that the female went away and left the eggs unattended, with the result that this released in the male a response that is normally only possible for the female. Such behaviour is certainly uncommon and I do not know of another record of a male Rook sitting on the eggs, but a great many actions normally associated with one sex can be carried out by the other if conditions favour a reversal of roles. The male Rook does more than half of the stick part of nest-building and just under half of the lining part; and when the nest cup is being formed there are actions by him as well as by the female which might be associated with broodiness. I also once saw a male Rook get into an unattended nest of newly-hatched young and, after stirring them with his bill, lower himself on to them; but he was driven off almost at once."—EDS.]

**Nuthatch feeding on a fungus.**—On 10th January 1960, with D., K., and P. Carr, I watched a Nuthatch (*Sitta europaea*) feeding on a fungus in Windsor Great Park, Berkshire. Several clumps of the fungus, which we identified as oyster mushroom (*Pleurotus ostreatus*), were growing on the trunk of a dead beech. The Nuthatch settled on top of one of the large fruit-bodies and pecked vigorously at the cap an inch or more from where it touched the tree. Having broken through the cap, it then fed repeatedly on the fleshy mass inside.

From our close observation point—we were standing only a few yards away with the bird more or less at eye-level—we were quite satisfied that the fungus was actually being eaten and, on going up to it afterwards, we could find no evidence that it had harboured any insects or their larvae. Further, because some fungi contain large numbers of insect larvae, and since other people particularly queried this point, D. Carr and I returned to the area four weeks later (the Park having been closed in the meantime) to check this question and to make sure of the species of fungus. By then all the fungus had fallen from that particular beech and was decaying on the ground beneath. Amongst the fruit-bodies which were not too badly decomposed we found one in which we were able to see two very small larvae. However, two clumps of the same fungus on a stump in a less exposed position were still in as good a condition as those seen on 10th January and we could find no larvae in them. C. M. VEYSEY

**Song Thrushes feeding on sandhoppers.**—In September 1959 I stayed five days on St. Agnes, Isles of Scilly, and during this time regularly saw Song Thrushes (*Turdus philomelos*) feeding on the myriads

of sandhoppers (*Talitrus locustra*) which covered much of the wet sand and tide-wrack on the shore. They sometimes even contested the right to feed on these crustaceans with Turnstones (*Arenaria interpres*), Dunlins (*Calidris alpina*) and other waders. I can find no reference to this habit in the literature, but residents of St. Agnes informed me that it is a long established practice there. I also noticed Song Thrushes behaving in the same way on the adjoining island of Gugh when sandy areas were exposed at low tide. BERNARD KING

**Field characters of the Icterine Warbler in late summer.**—Lemon-yellow under-parts are generally accepted as a conspicuous character of the Icterine Warbler (*Hippolais icterina*) at all times of the year, so it may be of interest to record that on 14th August 1958, at Hillerød in Sjaelland, Denmark, I had good views of one which showed no trace whatsoever of yellow. I watched it for several minutes at ranges down to ten feet. The under-parts were a uniform pale greyish-brown and the upper-parts darker and more earth-coloured. Had it not been for the brilliant blue-grey legs, I should have been tempted to identify this bird as an Olivaceous Warbler (*H. pallida*).

Similarly, I watched a family of Icterine Warblers for a total of nearly two hours on 5th and 6th August 1959 in Charlottenlund Skov. Two fledged young were still being fed by their parents. In bright sunlight the under-parts of each bird appeared buffish-white very palely flushed with yellow fading into greyish-white on the lower belly; the upper-parts were earth-brown and the superciliary greyish-white. In less strong light it was impossible to see any yellow wash at all and the birds looked drab brown above and pale buff beneath. In all lights the local Willow Warblers (*Phylloscopus trochilus*) appeared far yellower below and greener above.

On two other occasions in late summer in Denmark I have noted Icterine Warblers in which the vivid yellow flush illustrated in the *Field Guide* and *The Handbook* appeared in reality as buffish-white faintly tinged with a pale yellow wash that was often extremely difficult to see. Unfortunately, however, I did not keep any detailed notes of these individuals. T. C. SMOUT

**Rufous Warbler in Devon.**—On 20th October 1959 we were approaching Black Cove, near Prawle Point, Devon, when we saw a light russet-sandy bird which in flight seemed nearly as large as a Song Thrush (*Turdus philomelos*), but which on closer view appeared to be about the size of a Nightingale (*Luscinia megarhynchos*). It was not at all skulking, perching on a dry stone wall, on the tops of bushes and on the open ground of a potato field which had been cleared. Indeed, it seemed to prefer this open ground and made no attempt to

seek the abundant cover of bramble, gorse and bracken which surrounded the area. It hopped or moved in little runs and pauses like a thrush, and several times it appeared to find food on the ground. Its general behaviour was not unlike that of a chat and we had no difficulty in identifying it as a Rufous Warbler (*Agrobates galactotes*). The most noticeable feature about it was the way it constantly moved its long reddish tail up and down, or carried it even more cocked up over its back than a Wren (*Troglodytes troglodytes*) does, to an angle of about 130°. The tail was also frequently fanned to show conspicuous white tips. We noted the following general description:

> Under-parts pale buffish-white. Back pale rufous-sandy, wings darker and more rufous. Long tail bright reddish-brown, tipped with white at the sides and having black spots near the ends; centre feathers longer than outer ones (also one feather near the right side only partly grown). No noticeable superciliary. Eyes dark brown; bill light brown and rather long; legs bright pink and long.

We watched the bird for over a quarter of an hour from 1.00 p.m., and again for a similar period between about 2.20 and 2.35 p.m. when it was in a sheltered dip near the cliff-top immediately east of Gammon Head. On both occasions it was seen in excellent light at ranges down to 25 yards or so. We are not able to say to which subspecies the bird belonged, but the generally russet appearance seemed to us to suggest the typical race rather than one of the eastern forms like *A. g. syriacus* ("Brown-backed Warbler").

In conclusion, it is perhaps worth drawing attention to the fact that two of the five occurrences of *A. g. galactotes* listed in *The Handbook* were from the same area of Devon: one at near-by Start Point on 25th September 1859 and the other a few miles away at Slapton on 12th October 1876. R. C. STONE and E. C. STILL

**Yellow Wagtails wintering in Surrey.**—In 1957 the writer reported that a Yellow Wagtail (*Motacilla flava flavissima*) had been seen regularly at Beddington sewage-farm, Hackbridge, Surrey, from November 1956 to March 1957 (*Brit. Birds*, 50: 353). This appeared to be the first record of one wintering successfully in the British Isles.

During the winter of 1959-1960 this species was again recorded at Beddington. On 29th November 1959 J. Cooke and R. C. Righelato found a Yellow Wagtail feeding on a flooding water-meadow. The upper-parts were described as brown and the under-parts white with a complete absence of yellow (the bird was first identified by call-note). During December there were numerous records of a Yellow Wagtail, the only two giving plumage details commenting on the absence of

yellow. Then in January and early February 1960 there were conflicting descriptions from about twenty observers. The majority, including the writer, had seen a bird which was undoubtedly an adult cock coming into spring plumage and already showing bright yellow under-parts. A few records, however, still referred to the bird as brown and white. The presence of two individuals was finally confirmed on 14th February when they were found feeding within a few yards of each other. The last record was of one singly on 5th March.

Throughout the winter the birds consorted with large parties of Meadow Pipits (*Anthus pratensis*) feeding on the flooding water-meadows. During periods of snowfall they resorted to searching along the concrete walls of the sewage dykes as the previous one did in 1956-57.

B. S. MILNE

**Black-headed Wagtail in Dorset.**—On 9th October 1958, at Portland Bill, Dorset, I observed a *flava* wagtail which had all the characteristics of, and was quite inseparable from, the Black-headed form (*Motacilla flava feldegg*). It was first seen at 13.00 hours G.M.T. with a flock of *ca.* 100 Pied or White Wagtails (*M. alba*) that had arrived some time after 10.00 G.M.T. At long range it was an obvious *flava* wagtail with a black head and very bright under-parts. It was subsequently watched at distances down to 20 feet in bright sunlight and the following details were noted:

> Side-on view showed whole of head as black with no difference in colour between forehead, crown, ear-coverts or nape. Black of head extended below eye and dipped down slightly on to nape. Very small white crescentic markings around part of eye. Chin and throat bright yellow with no trace of any white. Rest of under-parts brilliant yellow except for lemon-yellow under tail-coverts. Small brownish markings at sides of breast opposite wing-coverts could only be seen in certain positions. Upper-parts grey-green, wings dark brown edged buff. In head-on view ear-coverts seen to be a slightly more intense black than crown. Slight gloss could be seen on head and upper-parts, and to a lesser extent on under-parts, when the bird was observed closely at a slight head-on view.

A male Yellow Wagtail (*M. f. flavissima*) was seen near-by soon afterwards. Under the same light conditions it appeared quite dull in comparison: the under-parts were a much less brilliant yellow and the upper-parts lacked the contrast between the back and wings. After I had been watching the Black-headed bird for about four minutes I noticed that small parties of *alba* wagtails were breaking off from the main flock and flying north, following the coastline. By the time I returned shortly afterwards with other members of Portland Bird Observatory only a few of these remained and despite an intensive search the bird could not be found again.

Skins were later examined in the British Museum. In several of these the whole head appeared black when viewed from the side, but when looked at head-on a slight contrast could be discerned between the crown and ear-coverts. A. B. SHELDON

It is relevant to comment briefly on other unusual *flava* wagtails seen at Portland Bill in October 1958. The last nine birds of the tail end of the usual autumn emigration were recorded on 28th September, with one on 3rd October. On 7th October, however, two more arrived at the Bill; one of these was only heard, but the other was seen with a party of 5 *alba* wagtails at 07.20 G.M.T. The latter, apparently a male, had crown dark bluish-grey, ear-coverts very dark appearing blackish, no trace of a supercilium, chin and throat impressively white, under-parts lemon-yellow. We at first thought it had the characters of the Grey-headed form (*M. f. thunbergi*), but later the extent of white on the throat indicated that it was closer to the Ashy-headed (*M. f. cinereocapilla*). Alternatively it seemed very near to the variant females of *feldegg* obtained by Ticehurst and Whistler in Albania in 1931 (*Ibis*, ser. 13, ii, p. 53 and pl. I). On geographical grounds the latter identification seems more likely because of the occurrence of the Black-headed bird on 9th October.

On 9th October three other wagtails were seen feeding with a Tawny Pipit (*Anthus campestris*). Two were *flavissima* (one a male and the other in first-winter plumage) and the third was judged to have the characters of the Blue-headed form (*M. f. flava*). These birds were under observation at the time A. B. Sheldon was watching the apparent *feldegg* recorded above. Two more birds appeared on 24th October, one of which was similar to the presumed *flava* seen on the 9th.

Descriptions have been submitted to *British Birds*, but the positive identification of these subspecies must remain uncertain. It is worth calling attention to the review by R. E. Moreau (*Ibis*, 100: 640) of a paper by L. Sammalisto (*Ann. Acad. Sci. Fenn.*, ser. A, 41: 1-46) dealing with *M. flava* in Fennoscandia, in which it is stated that "the hybridization of *flava* and *thunbergi* has produced variants practically inseparable from nine of the thirteen commonly recognised races of the greyheads." In much of Fennoscandia *flava* and *thunbergi* seem to pair at random and in South Finland there is a strong intermediate population. K. D. SMITH and J. S. ASH

**Yellowhammers feeding on grasshoppers.**—When we took possession of our house at Haslemere, Surrey, in June 1951, the surrounding ground was quite uncultivated and consisted of rough tussocky grass up to eighteen inches or more long, as well as a great deal of hawthorn scrub. The grass abounded with grasshoppers and a couple of pairs

of very active Yellowhammers (*Emberiza citrinella*) were frequently noticed. My wife and I were interested to see that these birds were constantly rising up out of the depths of the grass and then diving back again. Watching with binoculars showed that they were catching small green grasshoppers. They would fly in empty-beaked from the bushes, dive into the grass and come up with a grasshopper, then dive in a second, third and even fourth time until the same number of these insects could be seen held in the beak, neatly arranged like fish in the bill of a Puffin (*Fratercula arctica*). To the best of my memory four was the highest number of grasshoppers we saw making one beakful.

R. C. OLDHAM

**Yellow-breasted Bunting in Co. Donegal.**—On 18th September 1959 I identified a female Yellow-breasted Bunting (*Emberiza aureola*) at the eastern end of Tory Island, Co. Donegal. It was perching on walls and was fairly tame, seeming tired. I had it in view for half an hour from 3.30 p.m. The day was warm and cloudy, and the light rather poor, but with binoculars at ranges down to 25 yards I was able to note the following details:

> Smaller than Yellowhammer (*E. citrinella*). Tail erect when perching. Call a bunting "tsip", but thin and more nasal than a Yellowhammer's. Pale lemon-yellow throat, breast and belly, becoming buff under tail, unmarked except for a few beige streaks on flanks. Very strong head-stripes most obvious: buff-yellow superciliary contrasting with dark brown stripe just below eye (and with buff cheek); dark brown crown with narrow buff stripe down centre, less obvious than that of female Lapland Bunting (*Calcarius lapponicus*). Pale wing-bar visible in flight and a slight second one when perched. Pale (but not white) outer tail-feathers. Rich brown upper-parts, with rather mottled appearance on mantle and scapulars because of pale beige tips to feathers. Rump dark brown, rather dull. Bill and legs dark brown.

The bird eventually flew off towards East Town and could not be found again in spite of an intensive search next day. This is the first record of this species in Ireland.

HENRIETTA COOKE

# Reviews

**The Birds of the British Isles. By David A. Bannerman. Illustrated by George E. Lodge. Vol. VIII. Oliver & Boyd, Edinburgh, 1959. 400 pages; 26 colour plates. £3 3s.**

The eighth volume is both readable and informative and, like the others, very refreshing. It deals with the British "pelicans", Gannet, Frigate-bird, tubenoses, grebes, divers, pigeons, doves and Pallas's

Sandgrouse. Although the series is publicised as the ultimate authority to date on our islands' avifauna, it seems in the case of this volume that, however hard the author has tried to collect all known observations, some facts have been left behind in the great mass of material available. A few obvious weaknesses must be mentioned.

Both Cormorant and Shag get full and for once affectionate treatment, but the problem of the occurrence in Britain of the Southern Cormorant (*Ph. c. sinensis*) is left rather in the air without reference to recent work on plumage variation in this species. There is an excellent essay on the Gannet, including a useful summary of the growth of breeding colonies and a section on human predation. The tube-noses also get their due and, in general, the accounts serve to centralise some very interesting material on this elusive and poorly documented group. However, Dr. Bannerman chooses as his definitive text on Leach's Petrel a paper written twenty years ago, apparently ignoring the efforts of many other island-going ornithologists who have been exploring anew the isles of north-west Scotland in the last five years and whose observations have been published in *The Scottish Naturalist* and elsewhere. The danger of drawing material exclusively from only one or two sources is also shown by the statement that the Balearic Shearwater is absent from Scilly waters, where this form does in fact occur quite frequently. There is a full discussion of the facts (and fantasy) surrounding the only British Collared Petrel. Dr. Bannerman strongly advises its removal from the British list, suggesting the Cape Pigeon (*Daption capense*) as a bird with better claims.

The chapter on the Great Crested Grebe is enhanced by a lucid essay on breeding behaviour, while that on the Slavonian Grebe has in it many notes from a correspondent who lives beside the main Scottish colony. Translations of material from G. P. Dementiev in *The Birds of the Soviet Union* are often included in the sections on this family's members. On the other hand, no use is made of this source over the systematic position of the Great Northern and White-billed Divers. Dr. Bannerman still gives them both specific rank and is thus at odds with the many who now regard them as races. Nevertheless, nowhere else can one read so much about these two magnificent birds.

There is a full summary of observations, many of them collected personally by Dr. Bannerman, concerning the autumn movements of the Woodpigeon. It is clear that he favours the true immigrant theory and he puts up a fair case for it. The section on the Rock Dove includes a helpful statement on its present distribution in a truly wild state. Similarly, the spread of the Turtle Dove into Scotland and that of the Collared Dove across Europe are fully chronicled, while the story of the latter's arrival in Britain is covered to 1958.

The book ends with that paradox of birds, Pallas's Sandgrouse. This final chapter includes one of those wonderfully descriptive quotations that Dr. Bannerman so often allows us in all contexts, and one leaves this volume with a vision of Sohrab and Rustum battling away under an evening flight of sandgrouse. It is just this sort of material that distinguishes Dr. Bannerman's books from all others. His publishers give him space to roam; thus they are never mere text-books, but rather treasure-chests of his own and many others' observations.

The illustrations in earlier volumes by the late G. E. Lodge have already come in for some criticism. To the reviewer's mind they generally complement the text extremely well in spirit and are successful in avoiding the aesthetically dull patterns of mere identification aids. However, it would not be wise to rely on them as a replacement for the plates in existing handbooks. D. I. M. WALLACE

**A History of the Birds of Hertfordshire. By Bryan L. Sage. Barrie and Rockliff, London, 1959. 245 pages; 5 plates and diagrams. 27s. 6d.**

There is evidence of much work in this book; it is obvious that Mr. Sage has been diligent in collecting and summarising all published observations on Hertfordshire birds. He has also energetically spurred the present-day bird-watchers in the county into surrendering those local records which too often get buried in field note-books. Such a compilation might have weakened the resolve of a professional ornithologist, far more that of an amateur working in his spare time, but Mr. Sage is not a man to be daunted. His book is now the fullest available document on Hertfordshire birds.

As the latest addition to a long line of county bird books, however, it must also be looked at in the light of those it will join on the natural history shelves. From this viewpoint the author's preoccupation with the pigeon-hole classification of details has made the book lack balance. Two hundred pages are taken up with the systematic list, but only 22 lines are devoted to migration. Those who wait impatiently for proper coverage of internal migration in Britain will be disappointed at this summary dismissal of such an important subject. The description of the county's geographical characters is adequate, but it is surely inexcusable not to include a map in a book of this sort: the omission of one lengthy quotation and of an illustration which has recently been published elsewhere would have made room for the inclusion of such an important aid. The section on changes in the avifauna mentions only ten species and one species-group by name and it is too short to allow any real trend to become apparent.

Mr. Sage is more at home in the systematic list. Combined with a useful appendix, this sensibly covers all the birds, wild and escaped, ever recorded at large in Hertfordshire. All ornithologists who work in this or neighbouring counties will be grateful for the wealth of material contained in this section. Some common species like Blackcap, Garden Warbler and Whitethroat get scant attention, and certain generalisations go too far: for example, will all bird-watchers in Hertfordshire agree that the Linnet is so "very common and generally distributed" in the county? By and large, however, here is a faithful county list that is marred only by the many tedious postscripts resulting from the author's personal devotion to abnormal plumage variations—information which is surely out of place in a county bird book.

To keep the work as up-to-date as possible, Mr. Sage has included a stop-press appendix of selected 1958 observations. Most important of these is undoubtedly the breeding of a pair of Collared Doves. The author cannot have expected such an event when he started his book, but one hopes that similar dramatic happenings lie ahead. Meanwhile, future reviewers of the Hertfordshire avifauna now have a firm base to work on. This book is a worth-while addition to the libraries of everybody interested in the bird-life of the Home Counties.

D. I. M. WALLACE

**The Buzzard. By Frank Wenzel. Translated from the Danish by Reginald Spink. George Allen and Unwin, London, 1959. 86 pages, including 30 monochrome and 10 colour plates. 35s.**

This beautifully produced book is the work of a young Danish bird-photographer. Devoted entirely to its title, it cannot be regarded as a critical biography of the Buzzard, for there is nowhere any attempt by the author to compare or to correlate his findings with those of others. It is a straightforward account of his own extensive experience of the Buzzard in Denmark. As it is clear that this experience is based on no less than 156 nests, it is to be regretted that the interpretation is so narrow. At the same time, although the book is a "popular" one, with much about the atmosphere of woods and forests at dusk and dawn, it is popular in the best sense of the word, and a sound outline of the Buzzard's life is revealed. Here and there are facts and figures of interest. Of his 156 nests, 81 were in beech, 26 in oak, 49 in conifers. The additions to the bird's food of pig's heads and plaice (!) are novel and surprising.

It is to be expected that such a book should be well illustrated. This is the case, and it is yet another example of the difference between the Continental and the British schools of bird-photographers. The Continentals have a high sense of illustrative value and merit, as

opposed to the rigid insistence on technical perfection which is the great virtue, and yet the great limitation, of the British school. Abroad they have certainly learnt to catch atmosphere with their cameras (the moon rising over the forest, and birds alighting against the rays of the setting sun) and also drama (close-ups of the Buzzard's eye and of mice vanishing down a young bird's maw). There is no doubt that such illustrations have both variety and appeal. It is, however, a pity that the Continentals are not more critical of their technical standards when they do use the traditional photograph of the bird at the nest. Again, when so many of their excellent illustrations show the bird perched on trees and stumps, in situations from which the photographer who works only on truly wild subjects would find it very difficult to get results, it would be of assistance in evaluating the merits of the pictures if the author would state clearly whether or not they were taken of free birds or of young ones groomed for the purpose. There is nothing wrong in the latter, but it is part of a bird-photographer's code always to disclose the fact if it is so.

G.K.Y.

**The Birds of the Palearctic Fauna. A Systematic Reference (Order Passeriformes). By Charles Vaurie. Witherby, London, 1959. xii+762 pages. £5 5s.**

Fifty years ago Ernst Hartert brought all the Palearctic species and subspecies together in a critical review, *Die Vögel der Palaärktischen Fauna*, a work which has since stood as the basis for taxonomic research in the Eurasian region. Such research, developing naturally as the result of increased exploration of the avifauna of many lands, has shown the need for a new appraisal of the birds of this vast region, and Vaurie's work goes a long way towards meeting that need. (The present volume covers only the Passeriformes, but it is stated that a companion volume on the remaining orders is being prepared.) A great part of its value lies in the fact that it embodies his own intensive studies of recent collections made in the previously little known Iranian region embracing Iran, Afghanistan and Baluchistan, the detailed results of which, together with a number of other studies of Palearctic Passerines, appeared as thirty-three separate numbers of *American Museum Novitates* between 1953 and 1958.

The present work, then, is nothing if not authentic, and as a taxonomic guide will supplant Hartert's great work for many years to come. It is a pity that its scope was not extended to include (as in Hartert) a brief description of each species, giving the main diagnostic characters, for the earlier work is now virtually unobtainable and the standard of field-work during the past half-century has improved so

enormously that there is today a potential market among amateur ornithologists for a comprehensive and up-to-date study of this kind. It is appreciated that such comprehensive planning (as the author himself was aware) would have greatly increased the size—and cost!—of the present work, and perhaps it would be fairer to direct one's regrets towards the economic background of western civilisation rather than at any lack of foresight on the part of the author.

Notwithstanding this omission, which field-workers will deplore much more widely than taxonomists, this book has everything to commend it to the ornithologist whose outlook is not strictly parochial. For those engaged in bird observatory work, or in trapping and netting wherever migrant "rarities" are likely to turn up, or in travelling widely abroad, the work is an indispensible companion. A brief habitat note on all species is included, but by far the most useful single contribution is the distribution outline given for species and subspecies. In this respect the book is vastly superior to anything that has gone before, and the reader's understanding of this important aspect of Palearctic ornithology is greatly facilitated by the inclusion of a gazetteer (with sketch-maps of Turkestan and western China), and by the regional arrangement of the bibliography, these two features occupying 26 pages. The author's bald statement, "I have described the ranges as accurately as possible," can convey little of the colossal amount of painstaking research which must have gone into this section alone.

It is always difficult for the author of a systematic work on this gargantuan scale to strike the right degree of impartiality in the presentation of geographical races. Vaurie appears to have been scrupulously fair. Subspecies are graded into three categories: firstly, the well-differentiated ones; secondly, the moderately well-differentiated ones, which are treated separately but indicated by a special symbol; and thirdly, the poor ones, which are branded with an asterisk and relegated to the appropriate synonymy. It is of course an arbitrary system and the basis of it, as always in a work of this kind, is personal judgement; and, although not everyone will agree with the author's opinions, neither the "lumpers" nor the "splitters" will find much to grumble about, since the treatment provides an eminently satisfactory basis for future work. A valuable feature of this section is the outline given under polymorphic species of the geographical trends of variation, whether clinal or otherwise, but the brief diagnostic characters given for each subspecies are of limited value in the absence of species descriptions themselves.

Those who are accustomed to using *The Handbook of British Birds* will find a number of changes from that work. The arrangement, of course, accords with the "Wetmore order", apart from some minor departures. The notes which follow now summarise the features of

Vaurie's treatment which will be of most interest to British ornithologists, and also include a few points of criticism.

**Alaudidae.** The Short-toed Larks are treated as conspecific with *Calandrella cinerea* (Gmelin): *brachydactyla* is considered a good race, with *rubiginosa* and *hermonensis* only slightly differentiated. It is interesting to note that, whereas eastern Short-toed Larks reaching Fair Isle are usually identified with *longipennis*, *artemisiana* is perhaps as likely to reach western Europe as a vagrant. The eastern Skylarks recorded in *The Handbook* (I: 183-184) as *Alauda a. intermedia* can hardly belong to that race as now understood, and the birds seem more likely to have been specimens of either *dulcivox* or *kiborti*.

**Motacillidae.** Richard's Pipit becomes *Anthus novaeseelandiae richardi*. Among the Rock Pipits, the range of *A. s. kleinschmidti* should in the present writer's view be extended to include Shetland and Fair Isle as well as the Faeroes; and surely *A. s. meinertzhageni* of the Outer Hebrides is a well-differentiated form, exactly as described in *The Handbook* (I: 210). The Atlantic race of the Meadow Pipit (*Anthus p. theresae*), far from being an indistinct form from W. Ireland as Vaurie has it, is a well-differentiated one breeding in Iceland (*Bird Migration*, 1: 88-91) and is a migrant at the type-locality. All the Yellow Wagtails are "lumped" together as *Motacilla flava*.

**Laniidae.** The "Red-backed" and "Red-tailed" groups of shrikes are maintained as separate species, *Lanius collurio* (including *isabellinus*) and *L. cristatus*; and Clancey's *L. c. juxtus* is accepted as the breeding-bird of England and Wales, having a slightly darker mantle than nominate *collurio*.

**Corvidae.** The English Jay (*Garrulus glandarius rufitergum*) is thought to be only "moderately well-differentiated"; and *caledoniensis*, under which name Hazelwood and Gorton described the Scottish bird, is placed as a synonym of the richly-coloured *hibernicus*, rather than of the nominate form, which it most nearly resembles.

**Troglodytidae.** The Wren of England, Wales, Scotland and Ireland is *Troglodytes t. indigenus* Clancey, "moderately well-differentiated" from the typical race of Continental Europe. In the same category are *fridariensis* (Fair Isle) and *hebridensis* (Outer Hebrides), with *zetlandicus* (Shetland) and *hirtensis* (St. Kilda) above them in the hierarchy. (It is a pity that "Saint Kilda Island" occurs in the book on several occasions: there was no saint of the name and the correct form is St. Kilda.) The use of *indigenus* for the English birds is justified: Swedish birds have more extensive vermiculation on the ventral region and flanks, while the upper-parts are less rufous and more extensively marked with black. English birds are the whitest of all beneath, Irish birds being suffused with brownish-buff and nearer *hebridensis* but lacking the strong vermiculation of that race.

**Muscicapidae (Sylviinae).** The Cape Verde Cane Warbler (*Acrocephalus brevipennis*) is omitted from the work. The Paddyfield Warbler (*A. agricola*), here divided into three races, is surely monotypic: *tangorum* seems more correctly placed as a race of *A. bistrigiceps*, and "*brevipennis*" is merely a plumage-phase due to moult in the present writer's view. *A. agricola* and *concinens*, *A. arundinaceus* and *stentoreus*, and *Sylvia curruca*, *minula* and *althaea* are all regarded by Vaurie as separate species. The Iberian forms of the Chiffchaff, *brehmi* and *ibericus*, are synonymised with *Phylloscopus collybita*; and in Vaurie's opinion all the western records of *Ph. c. tristis* "probably belong to *fulvescens*", which he finds an acceptable race (see *Brit. Birds*, 48: 561-562). Vaurie follows the view of Portenko that the form of Arctic Warbler breeding from Siberia west to Lapland is *Ph. borealis talovka*, the nominate form being confined to N.E. Siberia. *Ph. nitidus* is given specific rank: as a vagrant to Britain it might be confused with *Ph. trochiloides* or *Ph. borealis*. A separate British Goldcrest is not recognised.

**Muscicapidae (Muscicapinae).** The genus *Ficedula* is used for the Pied, Collared and Red-breasted Flycatchers, and *Muscicapa* for the Spotted and Brown Flycatchers.

**Muscicapidae (Turdinae).** The Hebridean Stonechat *theresae* is synonymised with *Saxicola t. hibernans*, and the Faeroe-Iceland Wheatear *schioleri* with the Greenland race (*Oenanthe oe. leucorrhoa*). Following the Wheatears we have *Cercotrichas*, containing the Rufous Bush-Robin (*C. galactotes*), much better placed here than among the warblers: this is the bird which is usually called the "Rufous Warbler" in British books. The genus *Catharus* is used for the Nearctic Gray-cheeked (*C. minimus*) and Olive-backed (*C. ustulatus*) Thrushes. The Red-throated and Black-throated Thrushes are united under *T. ruficollis*, and Naumann's and Dusky Thrushes under *T. naumanni*; while the names used for the Redwing and Song Thrush are respectively *T. iliacus* (*T. musicus* auctorum) and *T. philomelos* (*T. ericetorum* auctorum). The White's (or Golden Mountain) Thrush is transferred to *Zoothera*.

**Paridae.** The Bearded Tit (*Panurus biarmicus*) is placed in the subfamily Timaliinae (babblers, laughing thrushes, etc.) of the Muscicapidae, and the Long-tailed Tit (*Aegithalos caudatus*) has status as a separate family (Aegithalidae). The Willow Tit becomes *Parus montanus*, the name *atricapillus* being reserved for the American Black-capped Chickadee. The nuthatches (Sittinae) and Wallcreeper (Tichodromadinae) are regarded as subfamilies of the Paridae, the latter being removed from the Certhiidae.

**Fringillidae.** It is alarming to find that the Central European race of Chaffinch (*Fringilla c. hortensis*) is synonymised with the typical race, and that the English *gengleri* "differs only slightly". The genus *Chloris* is dropped, the Greenfinch becoming *Carduelis chloris*, and the genus *Acanthis* is resuscitated for the Twite, Linnet and redpolls. The Hebridean Twite (*A. f. bensonorum*) is made a synonym of *A. f. pipilans*, though it is much darker than the typical race, from which English breeding birds hardly differ. Linnets from Scotland are considered separable as *A. c. autochthona* Clancey; while among the redpolls (two species, *A. flammea* and *A. hornemanni*), the Icelandic and Greenland birds are separated and the British Lesser Redpoll (*A. f. disruptis* Clancey) is not considered separable from the Alpine bird (*C. f. cabaret*), though it is at least a slightly differentiated form. The Scottish Crossbill appears as a race *scotica* of *Loxia curvirostra* and not of the Parrot Crossbill (*L. pytyopsittacus*) where it would appear to be much better placed.

**Emberizidae.** The buntings have family status and the Yellowhammer of Scotland, Ireland, Wales, the Isle of Man and northern and western districts of England is separated as *Emberiza citrinella caliginosa* Clancey, "probably grading into nominate *citrinella* farther south and east". The Black-headed (*E. melanocephala*) and Red-headed (*E. bruniceps*) Buntings are regarded as distinct species—a last generous concession to the "lister" in a work that is a truly remarkable achievement in erudition and industry.

One last word. The lay-out and typography, and indeed the whole of the technical side of production, are beyond praise and reflect the greatest credit on the publishers. K. W.

# Letters

## Migrations of the Oystercatcher

Sirs,—Since Mr. D. G. Andrew in his recent paper (*Brit. Birds*, 52: 216-220) on the migrations of the Oystercatcher (*Haematopus ostralegus*) makes some criticism of my earlier paper on the same subject (*Brit.*

*Birds*, 50: 519-526), perhaps you would be kind enough to allow me a reply, and an apology. The apology concerns my careless error in giving 29th May 1954 as the date of the ringing of an adult Oystercatcher on the Isle of May. Mr. Andrew correctly points out that this date should be 29th September. This is the classic error of dittography.

Mr. Andrew seems to think that the only evidence I had of the behaviour of adult Oystercatchers lay in the six records of full-grown but not necessarily mature birds listed on page 522. He makes no mention of my Table II which gave the recovery data of 17 certainly adult Oystercatchers. It was of course on these, not on the six birds of uncertain age, taken together with the records of immatures in Table I, that I based my tentative conclusions.

Mr. Andrew says that his Table I incorporates "all immature birds recovered between the October of their first year and the February of their third year", but immediately afterwards he qualifies this by saying that "a few September and one or two August records have also been included where the facts very strongly indicate that the bird had reached the end of its migration". I have no idea what this means. In my Table I were included 42 records from the first August and September, of which 14 were for birds that had already travelled 200-1,000 miles. I have no preconceived notion of where any of these birds was likely to reach "the end of its migration". I do not understand how anyone can say that a bird recovered in December or January, much less in August or September, has reached its "furthest south". The recent record (*Brit. Birds*, 52: 462) of an Oystercatcher ringed as a chick on Scolt Head Island, Norfolk, and recovered in its first December on the west coast of Morocco suggests that the end of an Oystercatcher's migration may be much further afield than any of us had suspected. This record also suggests that Mr. Andrew's "Average miles" column, on the scanty information yet available, is meaningless, which was indeed obvious enough already.

I also made it quite clear that in my opinion "by no means all" young Oystercatchers migrated, and that not all breeding Oystercatchers were sedentary.

My conclusions were stated with caution, as Mr. Andrew acknowledges. Let my hypotheses be disproved when more evidence accumulates; but they cannot be disproved, as Mr. Andrew seeks to disprove them, merely by the omission of much of the data on which I based them.

E. J. M. BUXTON

### Swans in Kent in February 1956

Sirs,—With reference to Dr. I. C. T. Nisbet's article on the influxes of Bewick's Swans (*Cygnus columbianus bewickii*) in the British Isles (*Brit.*

*Birds,* 52: 393-416), I should like to make a correction to Table II on page 398. Included in this table is a record of 12 birds which were seen at Botany Bay, Kingsgate, on 20th February 1956. These birds are stated in a footnote to have been "originally reported as Whooper Swans (*Cygnus cygnus*)", and this is precisely what they were.

It was snowing lightly at the time, and the birds flew past at cliff-top level, a height of about 40 feet. I had excellent views of the bill pattern at close range, and I noted the general size of the birds and the length of their necks. Their direction of flight was indicative of a coasting movement and I believe that they had flown round from the mud-flats at Pegwell Bay, where they had been reported the previous day.

D. WORSFOLD

**The Carduelinae as a subfamily of the Ploceidae**

Sirs,—The recent review by A.L.T. of *Fundamentals of Ornithology* by Josselyn Van Tyne and Andrew Berger (*Brit. Birds,* 52: 391) contains these words: "The authors also appear to have followed certain views of their own on taxonomy; thus, the inclusion of the Carduelinae (in addition to the Passerinae) in the Ploceidae is unusual and unexplained. . . ." In this connection I wish to draw attention to the paper by H. B. Tordoff, published in 1954, on "A systematic study of the avian family Fringillidae based on the structure of the skull" (*Misc. Publ. Mus. Zool. Univ. Mich.,* No. 81). In this the author shows that the Carduelinae can be separated from the remaining Fringillidae on palatal structure, proportions of the humerus and leg bones, certain dietary requirements, distribution, migration habits, singing habits, social behaviour and nest sanitation. Chiefly on the basis of skeletal characteristics Tordoff concludes that the carduelines are ploceids.

More recently I have confirmed this relationship by an immunological analysis of red-cell antigens of Carduelinae and their allies (see D. Mainardi, 1958, "La filogenesi nei Fringillidi basata sui rapporti immunologici", *Istituto Lombardo* (*Rend. Sc.*), B 92: 336-356). This analysis is well qualified for phylogenetic studies; in fact, it considers a very large number of genes, every antigen being generally determined by a different gene. As antigens are gene-determined, it can be inferred that the closer related two species are, the greater is the number of their common antigens, and the smaller the number of specific ones. So common antigens are a measure of common ancestry, while specific ones are a measure of differentiation.

I think that Tordoff's results and also mine can at last partially explain the unusual inclusion of the Carduelinae in the Ploceidae.

DANILO MAINARDI
*Department of Zoology, University of Parma, Italy*

[We have shown this letter to A.L.T. who has commented as follows: "Your reviewer is not in a position to assess the findings of Tordoff and Mainardi. His comment was merely to the effect that a departure from currently accepted practice was made without citation of reasons or authorities. One realises, of course, that in the present state of knowledge such practice is often arbitrary and seldom final."—EDS.]

# Recent reports and news

## *By I. J. Ferguson-Lees and Kenneth Williamson*

*The items here are largely unchecked reports, and must not be regarded as authenticated records. They are selected, on the present writers' judgement alone, from sources generally found to be reliable. Observers' names are usually omitted for reasons of space and in case a report is subsequently rejected, and none of the items will be mentioned in our annual Index. Readers are asked to submit anything of interest as quickly as possible.*

This summary very briefly covers some of the more interesting aspects of the first 3½ months of 1960. Among rarer birds, one of the most noteworthy was a Great Spotted Cuckoo (*Clamator glandarius*) which stayed from 3rd April to at least 15th on Pen-lon marsh, Newborough (Anglesey); it was to be seen hopping about the grass, feeding greedily on worms and probably caterpillars of the Drinker Moth. Two other southern species were reported later in April: two Bee-eaters (*Merops apiaster*) at Stanford-le-Hope (Essex) on the 20th, one at Cley (Norfolk) on the 21st and two later the same day between near-by Blakeney and Morston; and also on the 21st a Night Heron (*Nycticorax nycticorax*) near Budleigh Salterton (Devon). A clear influx of Ferruginous Ducks (*Aythya nyroca*) at the beginning of the year included a male at Hornsea Mere (Yorkshire) on 5th January; a male at Barn Elms Reservoir (Surrey) for some time from 10th January; a male at Theale New Gravel Pit, Reading (Berkshire), and a female at Harewood Park Lake (Yorkshire), both on 7th February; a male shot on the South Slob (Co. Wexford) on 11th February; and an immature male at Gailey Reservoir (Staffordshire) from 22nd February to at least the 29th. A male Green-winged Teal (*Anas crecca carolinensis*) was identified at Eccup Reservoir, near Leeds (Yorkshire), on 19th February. There were several reports of Red-crested Pochards (*Netta rufina*) in Berkshire, Gloucestershire and especially Sussex. Sussex also had more than its share of Mediterranean Black-headed Gulls (*Larus melanocephalus*), at least one a month during the period, the most recent on 16th April; these gulls were also noted in other regular areas such as Hartlepool (Co. Durham), but a more interesting observation concerned an immature at St. Ives (Cornwall) from 7th March to at least 28th. Among reports of Kentish Plovers (*Charadrius alexandrinus*), we should mention one at Portland (Dorset) on 2nd April and one at Perry Oaks (Middlesex) the next day. A Bluethroat (*Cyanosylvia svecica*) at Dungeness (Kent) on the very unusual date of 23rd January is also worth noting. Six cranes, considered to be *Megalornis grus*, were seen over various places in Middlesex and Surrey on 4th and 5th April, while a Demoiselle Crane (*Anthropoides virgo*) was observed at Carshalton and Beddington (Surrey) on 31st March and 10th April respectively: this was surely an escape.

There was evidently an influx of Avocets (*Recurvirostra avosetta*) about 2nd-3rd April and at that time, apart from ones in Norfolk, Suffolk, Kent, Sussex and Dorset, a party of eight was seen in Derbyshire and Warwickshire and five on Burton Marshes on the Flintshire side of the Dee; and on the 4th Leicestershire also had two. The commoner summer-visitors began to arrive unusually early

and a clear fall of Chiffchaffs (*Phylloscopus collybita*) took place in the last four days of February, there being a sudden crop of records in south coast counties and in Surrey, while on the 29th one was in song as far north as Northamptonshire. A further influx followed in the first week of March when there was quite a spate in counties like Surrey, Middlesex and Gloucester and the first ones appeared up the east and west coasts in Norfolk, Cardigan and Flint. The second week of March saw a still bigger fall and Chiffchaffs as far north as Derby and various Midland counties. Chiffchaffs took pride of place, but they were not the only early arrivals. Similarly at the end of February, for example, Garganey (*Anas querquedula*) were noted in Kent, a Wheatear (*Oenanthe oenanthe*) in Devon and, still more remarkable, a Sand Martin (*Riparia riparia*) in Sussex on the 27th and single Swallows (*Hirundo rustica*) at Haverfordwest (Pembrokeshire) and Starcross (Devon) on 29th February and 1st March, followed by another at Ashburnham Lake (Sussex) on the 6th. The Pembrokeshire Swallow was first found flying round a bedroom and after release remained in the area for several days. The first Hoopoes (*Upupa epops*) were seen in Cornwall on 28th February and 6th March and in Co. Cork on the latter date.

In spite of this early start, however, most summer-visitors remained scarce well into April. The numbers of Hirundines, for example, were still surprisingly small in mid-April. It is hoped to develop the picture of migrant arrivals in another issue, but at the moment information for March and April is still coming in and this paragraph must be confined to mention of a few other early dates. A Sandwich Tern (*Sterna sandvicensis*) appeared at Chew Valley Reservoir (Somerset) on 12th March and the species was noted as far north as Ayrshire by 6th April. Common or Arctic Terns (*S. hirundo* or *macrura*) were seen at Portland (Dorset) on 26th March, at Christchurch Harbour (Hampshire) on 31st March, on the Exe Estuary (Devon) on 2nd April (2) and 3rd April (4), at Grune Point (Cumberland) on 2nd April, and at Pitsford Reservoir (Northamptonshire) on 6th April. Also at Pitsford on the 6th was a Black Tern (*Chlidonias niger*) and another the same day at Hollowell Reservoir (Northamptonshire), followed on the 10th by one at Staines Reservoir (Middlesex). The first Sedge Warblers (*Acrocephalus schoenobaenus*) included one at Ruxley (Kent) on 26th March and one at Penzance (Cornwall) on the 27th. Two Tree Pipits (*Anthus trivialis*) appeared at Cape Clear (Co. Cork) on 21st March, with two again on the 26th and one on the 27th. There was also a House Martin (*Delichon urbica*) there on the very early date of 23rd March. A number of Redstarts (*Phoenicurus phoenicurus*) arrived in the south in the last few days of March, as now happens every year, the first ones at Cape Clear on 26th and 28th March. Several late March Blackcaps (*Sylvia atricapilla*) may have been first arrivals or wintering birds. Quite exceptional numbers of Blackcaps were recorded during the past winter, not only in most English counties as far north as Lancashire, Westmorland, Cumberland, Co. Durham and Northumberland, but also in Kirkcudbright, Peebles, Renfrew, Stirling, Fife, Perth, Aberdeen, Moray and Ross.

# Field investigations of the B.T.O.

**Status of the Red-backed Shrike.**—It is aimed to establish the present status of the Red-backed Shrike (*Lanius cristatus collurio*) and, if possible, to throw some light on the reasons for the considerable decrease that has taken place during the present century. Both positive and negative reports from suitable habitats are required, as well as any information on changes in numbers. Enquiry forms may be obtained from the organiser, Dr. D. B. Peakall, 88 St. Andrew's Road, Coulsdon, Surrey, but casual records (giving date, place and number of shrikes) will also be welcome, particularly from areas where there is no county report or where not all records are given in the report.

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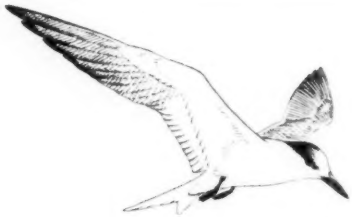

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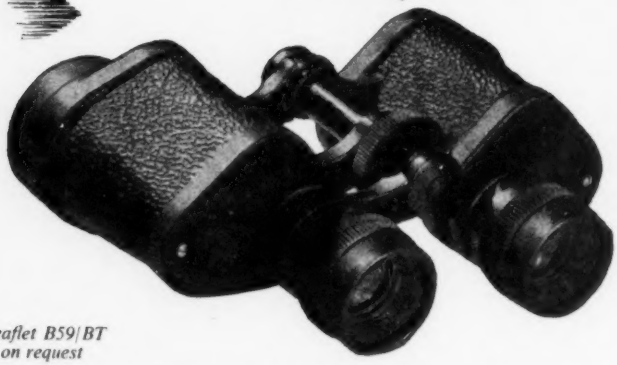

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